

**In the Specification**

Please amend the specification as follows:

Please replace the title with the following:

Method and Apparatus for a Noninvasive Determination  
of the Absolute Value of Intracranial Pressure

Please amend the following paragraphs as follows:

[0034] ICP generates within the patient's skull a stress in the form of internal pressure directed to the skull bones, intracranial arteries, veins and microvessels, ~~cerebroventricles~~ cerebroventricles, tympanic membrane (through the cochlear aqueduct) and mechanical load on the stapes footplace. As the ICP varies so does the stress in the skull bone, tympanic membrane and other biological objects. It has been found that the skull bone and the tympanic membrane, among other biological objects, behave as curved elastic plates, thus making the scientific principle illustrated in Figures 1a - 1c applicable.

[0041] It is possible to achieve  $ICP = 0$  by applying adjusting a body tilting its head up (healthy person, mild and minor head injury, 86% of severe head injuries) or by measuring characteristics and parameters of the biological object BO during or just after neurosurgery when the brain is opened or just closed.

[0044] The processor may include a digital memory device of the shape or its parameters of elastic biological object (skull bones, tympanic membrane, etc.), a digital comparator of initial shape (or its parameters) when  $ICP = 0$  and the shape when  $ICP > 0$ . This digital comparator generates the “start” signal to display of ICP absolute value in the case when the displacement is fully compensated by external applied pressure  $P_{EXT}$ .

[0045] This method is shown in greater detail in Figure 2B. A condition where  $ICP = 0$  is created by applying adjusting a body tilting its head up (healthy person, mild and minor head injury, 86% of severe head injuries) or by measuring characteristics and parameters of the biological object BO during or just after neurosurgery when the brain is opened or just closed. The displacement sensor measures and transmits a value for displacement when  $ICP = 0$  ( $D_{ICP=0}$ ) to a memory device, which stores this value. Later, when  $ICP > 0$ , the displacement sensor is used to measure and transmit a value for displacement when  $ICP > 0$  ( $D_{ICP>0}$ ) to a digital comparator on a continuous or periodic basis. External pressure  $P_{EXT}$  is applied (for example on a slowly increasing basis). At the moment when the digital comparator determines that the biological object has returned to its original position (i.e., when  $D_{ICP>0} = D_{ICP=0}$ ), ICP is determined to be the external pressure  $P_{EXT}$  and is stored and/or displayed.